

Perceptions of HRM system strength and affective commitment:

The role of human relations and internal process climate

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Introduction

Human resource management (HRM) academics have been trying to provide evidence of the positive link between HRM and performance outcomes for decades with little definitive theorisation (Guest, 2017). Of importance to this body of knowledge is research that brings workers back into the debate by exploring employee opinions of, and subsequent reactions to, HRM initiatives (Heffernan & Dundon, 2016; Dello-Russo, Mascia, & Morandi, 2016). From such analysis, the role of voice and communicative processes become an important element in employees' sense-making and understandings of managerial intention and authority (Wilkinson, Dundon, Townsend, & Donaghey, 2014; Godard, 2014).

Given the above issues, this article will focus on HRM system strength, specifically addressing the signalling mechanism that is the HRM system, as determined by employees, through a composite of high 'distinctiveness', 'consistency', and 'consensus'. In doing so we address the research question 'To what extent does HRM system strength affect emotional attachment?' In order to further enhance understanding we develop a moderated mediation model which jointly examines human relations climate as the mediating mechanism, and internal process climate as the moderator of HRM system strength and commitment. We address affective commitment as a dependent variable as its proximity to HRM processes is considered as a predictor of employee behaviours like discretionary effort (Purcell, Kinnie, Hutchenson, Rayton, & Swart, 2003) and citizenship behaviour (Ng & Feldman, 2011). According to the logic of social exchange theory, positive perceptions of HRM signalling should boost affective commitment as a 'relational reciprocating response' (Cropanzano Anthony, Daniels, & Hall, 2017, p. 489).

In order to further unpack the HRM signalling effect, we address facet-specific organisational climates. Climate is the process whereby an employee interprets stimuli in their immediate work environment in a way that makes sense to them. This is based on both their current working conditions and their appraisal of managerial intent that shape and formulate ideas about the basis of HRM. This research examines key intervening variables amongst HRM and affective commitment to narrow the theoretical gap in relation to the strength of a process-based HRM system, using the mediating lens of human relations climate, and a moderating lens of internal process climate in the formation of workforce orientations.

A human relations climate is one where ‘norms and values associated with belonging, trust, and cohesion, achieved through means such as training and human resource development ... and [subsequent] interpersonal relations are supportive, cooperative, and trusting in nature’ (Patterson, West, Shackleton, Dawson, Lawthom, Maitlis, & Wallace, 2005, p. 385). In short, a human relations climate can be described as comprising the perceived treatment people experience in the work relationship (Reece & Reece, 2016). Human relations climate therefore offers a prospective ‘theoretical bridge’ to improve our understanding of the HRM signalling effect and its impact (cf Boxall, Guthrie, & Paauwe, 2016).

Internal process climate reflects a concern for formalisation of HRM regulation (Patterson et al., 2005). Internal process climate represents the way formal policies and practices are made and modified with a view to maintaining structured organisational operations. Whereas some HRM research stresses the importance of organic or flexible HRM adaptation (Bowen and Ostroff, 2004), others draw attention to the significance of due process, informal social dialogue interactions and associated justice implications, such as employee well-being (Gould-Williams, 2007).

Our study provides a number of useful insights. By addressing the signalling mechanism we attempt to counteract the dominance of content-based studies premised on simple input- output based assessments of distal variables (Cafferkey & Dundon, 2015). Moreover, in drawing on a diverse range of employee experiences we complement research on HRM system strength which has focused more exclusively on particular sectors likely to have specific service or vocational orientations (Townsend and Wilkinson, 2010) e.g. hotels (Li et al., 2011) and hospitals (Sanders, Dorenbosch, & deReuver, 2008). Finally, we take account of contextual influences to help further advance HRM research. The research responds to Shore, Coyle-Shapiro, Chen and Tetrick's (2009) call for researchers to address the process of social exchanges from different cultural settings by conducting research in a Malaysian context.

We structure our paper as follows: First, we provide a review of the literature on HRM system strength and examine its impact on affective commitment. Next, we outline our hypotheses regarding the mediating role of human relations climate between HRM system strength and affective commitment and the role of internal process climate in the relationship between HRM system strength and human relations climate. As an extension, we further examine the role of internal process climate in the indirect relationship between HRM system strength and affective commitment that is mediated by human relations climate. In the following sections, we detail the the method, sample and measures and our analytical approach, and then present the study findings. Implications of the research and potential for future research are then presented.

Theoretical base and hypotheses development

HRM system strength and affective commitment (AC)

Historically HRM research has being preoccupied with the content as opposed to the process of (Sanders & Yang, 2016). We operationalise HR processes as the set of initiatives directed at

communicating, and implementing HRM intention. HRM system strength addresses the effectiveness and efficiency of the HRM system in communicating to workers what is expected, valued and rewarded by an organisation (Ostroff & Bowen, 2016). Bowen and Ostroff (2004) determined a 'strong' using Kelley's (1973) covariation model of attribution, through three features: (1) distinctiveness of HRM practices (i.e. they are openly visible, understandable, legitimate and relevant to employees goals), (2) consistency in the signalling of HRM practices (i.e. their purpose is presented in uniform manner that is internally aligned), and finally (3) consensus regarding HRM (i.e. there is overall agreement as to the purpose of the practices). The strength of the HRM systems thesis is based primarily on the saliency of HRM in its implied objective in sending messages in an unambiguous manner as to the values and priorities of the organisation (Ostroff & Bowen 2016).

It is important to note that these three features (Distinctiveness, Consistency, and Consensus) are not a representation or justification of specific HRM practices per se; instead, they are to be viewed as a means of assessing the inherent communication and signalling that is implied through such HRM practices. In effect, they are the antithesis of a means to classify content or justify HRM practices and accordingly privilege employee perceptions. *Distinctiveness* is the unique messages and that are signaled by HRM practices that ought to be visible, easily understood, reflect a legitimacy of authority and provide practical relevance (Bowen and Ostroff, 2004). Visibility refers to the saliency of the HRM; understandability concerns a lack of ambiguity of HRM; legitimacy of authority deals with the authority of the HRM system to invoke formally sanctioned behaviours; finally relevance is the process whereby an individual assesses a situation in terms of their own goals and objectives and how these objectives are aligned to the goals of the organisation (Bowen & Ostroff, 2004, p. 208-210). Paauwe & Boselie (2005) highlight the importance of aligning these values and suggest that Person-Organisation

fit in this category i.e. employing an individual to fit the systems in place. *Consistency* refers to the process of establishing an effect over time whereby the effect consistently occurs irrespective of the form of various interactions; consistency is made up of the instrumentality, validity and consistency of HRM messages (Bowen & Ostroff, 2004, p. 210). Instrumentality refers to removing all ambiguity from cause and effect relationships; validity concerns attributions where HRM should do as it implies; and consistent HRM messages refers to the compatibility and stability of HRM messages over time (Bowen & Ostroff, 2004, p. 210-212). This highlights the aspects of an HRM system that must be internally aligned and complimentary in nature by establishing consistent relationships over time, people, and contexts (McDermott, Conway, Cafferkey, Bosak, & Flood, 2017). Finally, *consensus* in essence reflects agreement between those charged with developing and implementing policy (Bowen & Ostroff, 2004, p. 212-213). Bowen and Ostroff (2004) suggest that ‘agreement among top decision makers can help to foster consensus among employees, since it allows for more visible, relevant and consistent messages to be conveyed to employees’.

Despite its obvious appeal, attempts to actually measure HRM system strength are remarkably rare (some notable exceptions include Li et al., 2011; Delmotte, De Winnie, & Sels, 2012; Sanders et al., 2008). Those who have studied the relationship report contradicting findings. In a study of hospital departments, Sanders et al. (2008) found a positive relationship between distinctiveness and consistency and affective commitment, but not for consensus. This is interesting as Ostroff and Bowen (2016) have since suggested that consensus through key decision makers may serve as a necessary condition of the other components of HRM strength. Li et al. (2011) also found disparity in the relationship; while distinctiveness was deemed crucial for employee outcomes, consistency was positively related to intention to quit. Those who have investigated the ‘strength’ thesis have inextricably linked the construct with

organisational climate and attitudinal outcomes (Li et al. 2011; Sanders et al. 2008). Others use the strength thesis to attempt to address variation in terms of stakeholder expectations (Delmotte, De Winne, Gilbert, & Sels, 2007), HRM target achievement (Sanders & Yang, 2016), or cultural determinants in our understanding of the HRM system (Farndale & Sanders, 2016). What can be concluded from research on HRM system strength is it remains in its infancy due to the limited empirical enquiry thus far and the lack of an established means of theoretical understanding and measurement (Ostroff & Bowen, 2016). Aligning with our focus on employees, and following the lead of Delmotte et al. (2012), we seek to explore perceptions of HRM system strength. Arguably this forms an authentic measure of signalled HR as understood and interpreted by employees (Geare, Edgar, McAndrew, Harney, Cafferkey & Dundon, 2014; Sanders et al., 2008; Schneider, Salvaggio, & Subirats, 2002). Following that rationale of Bowen and Ostroff (2004), we hypothesise that:

Hypothesis 1: The more employees perceive HRM systems as being distinctive (H1a), consistent (H1b), and achieving consensus (H1c), the more employees show affective commitment.

The role of human relations climate

Drawing on attribution theory (Kelley, 1973), Bowen and Ostroff (2004 p. 204) suggest when an employee determines that all three aspects of a HRM system are present, a strong organisational climate would result (Schneider et al., 2002). Where strong organisational climates prevail, a consensus between employees may enhance the work milieu in such a way as to affect organisational effectiveness (Valizade, Ogbonaya, Tregaskis, & Forde, 2016; Dickson, Hanges, & Resick, 2006). Whereas Bowen and Ostroff (2004) highlighted climate as a mediator between HRM strength and outcomes, there have been mixed empirical results on this. As an example, Sanders et al., (2008) found a limited role for climate as a mediator, instead following the climate literature to successfully explore moderation effects. Arguably, key differences may be, in part, attributable to the definition deployed (e.g. climate strength/level)

and also due to the nature of the climate investigated (e.g. general versus facet specific) (see Ostroff and Bowen, 2016).

We diverge from previous work by exploring human relations climate as a facet specific organisational climate, as it dovetails neatly into the ‘strength’ space provided by HRM system strength. Human relations climate can be described as comprising the treatment and relationships people experience in a work environment (Reece & Reece, 2016). The origins of the concept can be traced back to the human relations school of thought (McGregor, 1960), socio-technical systems (Geels, 2004) and the competing values framework (Quinn & Rohrbaugh, 1981). A human relations climate primarily addresses the wellbeing, growth and subsequent commitment of employees and comprises of elements including supervisory support, autonomy, training, and welfare (Patterson et al. 2005). In effect, human relations climate has resonance with the employee champion role espoused by Ulrich (2013) as the means to elicit positive work outcomes in a mutual gains capacity. Human relations climate acts in a similar way to an internal form of branding, pointing to the message that HRM sends and the means by which it is received by employees as forming a critical component of their intentions (Li et al. 2011). In exploring human relations climate, our logic is in keeping with social exchange theory which argues that employees view HRM activities as representations of organisational support, and employees, in turn, reciprocate with proactive behaviours (Gould-Williams, 2007; Whitener, 2001). Hence, the opportunity for mutual gains exists, whereby both the organisation and the employee can advance their interests and concerns as complimentary, consistent and distinctive (Martinez-Lucio & Stuart, 2004; Cullinane, Donaghey, Dundon, Dobbins, & Hickland, 2014). Valizade et al. (2016) extend this argument and suggest that gains can exist beyond the employment relationship, by extending the human

relations proposition to other stakeholders, thus furthering the latent potential of both the HRM system strength and iterative human relations climate. Therefore we hypothesise:

Hypothesis 2: Human relations climate mediates the relationship between strength of HRM system (distinctiveness, consistency and consensus) and affective commitment.

Moderating role of internal process

The internal process climate works on a premise of focussing internally with a control orientation i.e. structured rules, formal bureaucracy (Patterson et al. 2005). The core focus of an internal process climate is to maintain stability through formalised regulatory guidelines. Internal process climate acts as a moderating variable between two signalling variables i.e. the strength of the HRM system (how effectively the HRM system conveys its message) and human relations climate (a distinct concern for employment related matters). As an internal process climate primarily focuses on both tradition and formalisation (Patterson et al. 2005) we would expect, particularly in a socially cultural collective context with a formal economy such as in Malaysia, that the greater structural formalisation then the higher the relationship between the HRM system strength and human relations climate (Van de Voorde, Paauwe, & Van Veldhoven, 2011). Therefore we can formulate our third hypothesis:

Hypothesis 3: Internal process climate will moderate the effect of HRM system strength (distinctiveness, consistency and consensus) on human relations climate such that the effect is stronger when internal process climate is higher.

Since we conceptualised a mediation model previously, the potential moderating role of internal process climate in the relationship between HRM system strength and human relations climate suggests a possible first stage moderated mediation model (Hayes, 2013). Based on the theoretical basis elaborated above, we specifically expect that the indirect effect of HRM

system strength on affective commitment through human relations climate will be greater when internal process climate is higher than when internal process is higher. Thus we propose:

Hypothesis 4: Internal process climate will moderate the mediating effect of human relations climate on the relationship between HRM system strength (distinctiveness, consistency and consensus) and affective commitment such that the mediating effect is stronger when internal process climate is higher.

Bases on our analysis thus far we propose the model shown in Figure 1.

[Insert figure 1 here]

Method

The Research Context

The research draws on a research sample from Malaysia, representing a shift from the dominance of western samples and opening up a broader basis for better cultural understanding of HRM (Batt & Banerjee, 2012; Bainbridge et al. 2017). Malaysia also offers a unique cultural context in which to study the research variables, being a collectivist society (Hofstede, 2016). Employees operating in a formal collectivist society have a tendency to conform to group sense making which may reflect system strength (Li et al. 2011). Likewise, collectivist based cultural values resonate with a supportive group climate along with an emotional attachment to established cultural obligations (Rockstuhl, Dulebhorn, Ang, & Shore 2012). Farndale and Sanders (2016) suggest that, in such high power distance cultures, HRM can be seen as a form of authority that commands respect. Li et al. (2011 p.1836) extend this orientation and propose that in a collectivist society HRM initiatives can be viewed as ‘laws’ to ensure harmony and employees therefore act in accordance with organisational expectations, with an inherent trust in leadership (Dulebhorn, Bommer, Liden, Brouer, & Ferris, 2012). Consequently, Malaysia offers a unique opportunity to address signalling functions of the HRM system and concern for human relations related matters.

Sample and procedure

Our research attempts to assess micro-level HRM system strength, through perceptions of HRM system strength as opposed to addressing HRM strength as a higher level construct (Ostroff & Bowen, 2016; Farndale & Sanders, 2016). We assess employee perspectives of their HRM system as an indicator of micro-level strength to gain a broad understanding of the prospective impact of the key aspects of the HRM system; distinctiveness, consistency, consensus. An employee survey was conducted across nine companies, that comprise five specific sectors in Malaysia in 2014 addressing the call by Li et al. (2011) for research employee-based research across multiple industries. A focus on employees is in keeping with the process orientation of the HRM system, and its leaning towards how HRM is implemented (Ostroff & Bowen, 2016; Nishii, Lepak, & Schneider, 2008). The industry groups are representative of the specific main sectors in Malaysia i.e. , government, , manufacturing, education and logistics (Cafferkey & Harney, 2014). Hard copy surveys were distributed, through a specific individual to a 10 percent sample in each organisation. In total 2,069 surveys were distributed. The main or largest employee grouping in each organisation was the focus. Surveys were first distributed and an individual follow up reminder was dispatched after a period of two weeks. Incomplete survey meant that 94 survey were eliminated from the analysis (minimum of ten percent of question missing). Our final sample consisted of 585 survey or a 28.8 percent response rate (see table 1 for an individual breakdown). The sample consisted of 57 percent males, those with tertiary education was in excess of 71 percent and 55.9 percent of respondents were in the age bracket 31 years or more while 47.1 percent of respondents had a tenure in excess of 5 years..

[Insert table 1 here]

Measures

The measures were Likert based, on a predetermined 5 point scale from 1 (strongly disagree) to 5 (strongly agree). All measures were pilot tested in one organisation to test their utility on a sample of 60 employees. Subsequent follow up revealed that respondents had difficulty with some reverse coded questions; this is potentially due to the subtle variations that may not be picked up when English may not be an individual's first language, which is not uncommon in Malaysia. A version was also offered in the Malaysian national language to counteract this problem and responses indicated no significant differences between both samples.

Strength of the HRM system is operationalised through an adapted 10-items scale first developed by Delmotte et al. on distinctiveness, consistency and consensus (2007 pp. 38-40). Distinctiveness was measured using 4 items concerning the visibility of HRM practices (e.g. "Employees are regularly informed about initiatives taken by the HR department"). Consistency was measured using 3 items regarding the consistency of HRM messages (e.g. "In this organisation there is clear consistency between words and deeds of the HR department"). Finally, to assess consensus 3 items were used (e.g. "Management unanimously supports HR policy in this organisation") Factor analysis showed items loaded on to three clean factors with one item being removed from the consensus scale. Cronbach's α for these scales were 0.83 (distinctiveness), 0.69 (consistency), and 0.74 (consensus).

Affective commitment was measured through Meyer and Allens 8-item scale, with items such as "I enjoy discussing my organisation with people outside it" Cronbach's α was in excess of .80.

Human relations climate draws on the scale of Patterson et al. (2005) and their Organizational Climate Measure. In this instance human relations climate was identified as a key intervening variable, displaying a proximity to both HR activities and attitudinal subsequent outcomes. Human relations climate consists of (1) Supervisory, (2) Autonomy, (3) Employee Welfare and 4) Training, developed by Patterson et al. (2005). Sample items include “This organisation tries to be fair in its actions towards employees”, “People receive enough training when it comes to using new equipment”, “Supervisors here are really good at understanding people’s problems” and “Management trust people to take work-related decision within getting permission first”. Following factor analysis, we created one overall human relations climate scale ($\alpha = .90$).

Internal process climate was measured using a 9 item scale developed by Patterson et al. (2005) which assessed formalisation and tradition. Sample items include “It is considered extremely important here to follow the rules” and “Senior management like to keep to established, traditional ways of doing things”. Following factor analysis, we created one overall internal process climate scale ($\alpha = .85$).

Control variables: To control for employee characteristics, we include age in years, gender, level of education and organisational tenure in a similar vein to Li et al. (2011) and Sanders et al. (2008). These control variables were included as when dealing with perception as in this case, slight demographic changes can have significant impact with a model, we include these in an exploratory sense. Industry controls included public/private and industry sector. Industry sector was controlled via dummy variables.

Common method variance. Single sources of self reported surveys usually highlight a potential for common method variance. As all variables in our study were collected from a single source and self-reported by respondents, the data might be vulnerable to CMV. Corrective measures were taken at both the analysis and design stages of the research to alleviate common method concerns (Podsakoff, MacKenzie, & Podsakoff, 2012). At the design phase, the order of questionnaire items was changed and we provided assurances about the anonymity of the survey and the confidentiality of the data. Through the analysis phase, Harman's single-factor test was conducted and a series of confirmatory factor analysis were carried out which are reported in the results section. Since no single factor emerged, common method bias was not, in this instance, an issue (Podsakoff et al., 2012). We also considered the complexity of our model. By including a non-linear interaction term in our research model, Chang et al., (2010) suggest it is likely to reduce CMV.

Data analysis

To verify our hypotheses, we ran several regression analyses adopting PROCESS (version 2.13), an add-on macro for analysis in SPSS was used (Hayes, 2013), to test mediation (model n.4 of the PROCESS macro), moderation (model n.1), and moderated mediation models (model n.7). The first Model 1 represents the normal theoretical approach (i.e., a Sobel test) plus bootstrapping, coupled with Baron and Kenny's (1986) method to ascertain the indirect effects of HR system strength on affective commitment. Model 7 incorporates the bootstrapping methods and probes the conditional indirect effects at different values of the moderator variable. All proposed models included three covariates (gender, age and industry), and the variables were centered to minimize issues relating to multicollinearity. We tested the models using the contemporary bootstrapping technique (Hayes, 2013), 5,000 resampling with replacement. Through bootstrapping a more comprehensive and reliable assessment of indirect

effects is made. Additionally, it does not make the often unrealistic assumption about normality in the sampling distribution (Preacher & Hayes, 2008). Following Edwards and Lambert's (2007) approach the significance is determined when zero does not appear in the confidence interval.

Results

Construct validity of measurement

To test for discriminant validity of the constructs, we adopted a confirmatory factor analysis approach using AMOS 23.0. We compared the six factor model with a five factor model (that combined consistency and consensus variables) and a four factor model (that combined distinctiveness, consistency and consensus variables). Results showed the six-factor model was superior to the alternative model. The index shows a good degree of fit to the six-factor model ($\chi^2/df = 3469.7/875 = 3.9$, $p < 0.001$, comparative fit index [CFI] = .89, root mean square error of approximation [RMSEA] = 0.08 and the standardised root mean square residual [SRMR] = 0.07) compared to the five factor model ($\chi^2/df = 4124.0/870 = 5.1$, $p < 0.001$, CFI = 0.87, RMSEA = 0.11, SRMR = 0.07) and four factor model ($\Delta\chi^2 = 5562.24/900 = 6.18$, $p < 0.001$, CFI = .81, RMSEA = 0.11, SRMR = 0.07). Taken together the fit indices of the models showed that they were distinct constructs.

Descriptive statistics

Table 2 presents the main descriptive elements of the research including means, standard deviations and correlations. As presented in the table, distinctiveness, consistency and consensus were positively related to affective commitment ($r = .321$, $p < 0.01$, $r = .222$, $p < 0.01$ and $r = .239$, $p < 0.01$ respectively) human relations climate ($r = .386$, $p < 0.01$, $r = .368$,

$p < 0.01$ and $r = .331$, $p < 0.01$ respectively) and internal process ($r = .149$, $p < 0.01$, $r = .267$, $p < 0.01$ and $r = .083$, $p < 0.01$ respectively).

[Insert table 2 here]

Hypotheses testing

Hypothesis 1 proposed HRM system strength would positively predict affective commitment. Results reported in Table 3 show that the direct impact of HRM system strength on affective commitment were supported for (a) distinctiveness ($b = .3044$, $p < .001$), consistency ($b = .1748$, $p < .001$ and consensus ($b = .1921$, $p < .001$). HRM system strength was also positively related to the mediator (human relations climate). Human relations climate, in turn, had a significant relationship with affective commitment. The results imply that human relations climate could mediate the association between HRM system strength and ones emotional attachment. We then controlled the effects of human relations climate on affective commitment and found that the association between HRM system strength (namely distinctiveness, consistency and consensus) was reduced (c vs c' in Table 3) though still significant. This decrease suggests partial mediation. Results from the Sobel tests showed that the mediation effect is significant for distinctiveness ($Z = 4.98$, $p < .001$), consistency ($Z = 6.2242$, $p < .001$) and consensus ($Z = 4.4278$, $p < .001$). Results demonstrated that the 95% bias-corrected confidence interval (CI) for the indirect effect did not overlap with zero for all three dependent variables, thus supporting Hypotheses 2.

[Insert table 3 here]

Our next set of hypotheses predicted that internal process would moderate the relationship between HRM system strength and human relations climate. The results of the moderation regressions of internal process on HRM system strength and human relations climate are shown

in Table 4. All variables were mean centered first and each independent variable was tested separately (whilst including the other independent variables as covariates along with the other controls). For step one, two variables are included: the independent variable and the moderator (Internal Process). Both distinctiveness and internal process account for significant variance in human relations climate ($R^2 = .127$, $F(3, 569) = 27.58$, $p < .001$). This was also the case for consensus ($R^2 = .112$, $F(3, 569) = 23.93$, $p < .001$) and consistency ($R^2 = .151$, $F(3, 569) = 33.76$, $p < .001$). An interaction term between each of the independent variables and internal process was created (Aiken & West, 1991) and added to the regression model. Results in Table 4 show that the moderator interacted with (a) distinctiveness (b) consistency and (c) consensus to predict human relations climate thus Hypotheses H3a, H3b and H3c were supported. Examination of the interaction plots (see figures 2, 3 and 4) shows an enhancing effect that as HRM system strength (for distinctiveness, consistency and consensus) and internal process increased, human relations climate increased.

[Insert table 4 here]

[Insert figures 2, 3 and 4 here]

Next, we performed a moderated mediation analysis to test Hypotheses 4 by examining the extent to which the conditional indirect effect of HRM system strength through human relations climate was different at different levels of internal process (i.e. high, medium or low) on affective commitment. The results shown in Table 5 reveal that the indirect effects of internal process and the three dimensions of HRM system strength were significant at high and average levels of the moderator.

[Insert table 5 here]

Discussion

This research explores the theoretical proposition set out by Bowen and Ostroff (2004) by focussing on HRM processes and the signalling mechanism that is the HR function of high distinctiveness, consistency, and consensus (HRM system strength). We advance understanding by drawing on facet specific climates of human relations and internal process climates to explain variations in affective commitment. Moreover, we extend sector specific work to provide insights from a diverse range of sectors to encapsulate the Malaysian economy. This research provides important insights into our understanding of the association between the HRM system strength and affective commitment. The results suggest that the individual aspects of HRM system strength are important considerations in explaining levels of affective commitment, while also capturing the shape and direction of human relations climate. This provides important theoretical considerations for our understanding of the HRM-performance debate that add a refined nuance to understanding the phenomena and inter-relationship dynamics in multiple ways.

We further develop the theoretical understanding of HRM system strength by utilizing human relations climate, thereby complimenting the interaction effects work of Li et al. (2012) by utilizing a human relations climate. Previous work (Li et al., 2012; Saunders et al. 2008; Bowen and Ostroff, 2004) have almost an implied assumption that a strong HRM system is in fact in both the organisations and employee mutual interest. The addition of both human relations climate (a concern for people related matters) alleviates this implicit assumption, and assists in our theoretical chronicling of the means through which HR initiatives influence work outcomes.

Our findings affirm the value of a process-based understanding of HRM systems (Katou, Budwar & Patel, 2014). We report support for the role of distinctiveness, consistency and

consensus, highlighting a potential impact on affective commitment. In practical terms, where the HRM system is stronger as measured by these three dimensions, employees are likely to perceive that the organisation displays intent that captures their interests. The implication is a pathway depicting affirmative yet variable citizenship behaviours (Liu, 2009). The findings support the previous work of Sanders et al. (2008) who argue that when employees view the HRM system as more distinctive, consistent and where there is more consensus between the parties, they are likely to be more committed. One key implication is that managing the message, such as employee voice or communication practices, becomes a strategic lever in realising the potential of employee-centric HR approaches which underpin well-being as well as organisational performance (Harney, Dundon, & Wilkinson, 2017). Well-being in this instance is complimented by the distinct concern for people related matters that is the human relations climate and a HRM system that does not deviate from message. When the HRM system is strong coupled with human relations climate positive, mutually beneficial behaviours ought to ensue.

Whilst the findings of our first hypothesis detail the impact of the strength of the HRM system, it is critical to understand the means by which such impact operates (Jiang, Lepak, Hu, Baer, 2012). The data suggests a direct relationship, the introduction of human relations climate serves as an important mediator in the theoretical understanding of the relationship by means of the practices and processes through which employees make sense of and attach meaning to HRM (Boxall et al., 2016). In line with Bowen and Ostroff (2004), we argue that HRM can be considered as a signalling mechanism through which an organisation communicates with its workers. Human relations climate neatly compliments this assertion, connecting the interests of a range of relevant people, with legitimate concerns in addition to the narrow neo-liberal

ideological discourse favouring an exclusivity of shareholders. To this end, employee ideas, interests, beliefs and concerns are important elements in any HRM arrangement. While this sentiment is long since asserted, our findings of full mediation via human relations climates, empirically demonstrate this claim.

The findings of both the moderation and the moderated mediation show the importance of structure and agency in formalising policy and practice. Internal process climate has proven to be a valuable moderator in this instance, with HRM system strength when there are high levels of formalisation and tradition, there will be higher instances of human relations climate. Common convention would suggest that formality may function as the antithesis of the HRM system; however, as hypothesised, in a collective high power distance society such as Malaysia, formality is of particular centrality to affective commitment outcomes. Here we extend on Li et al. (2012) who view HRM legitimacy as almost 'laws' in collective cultures. Both the signalling function that is HRM and the collective cultural nuances of human relations climate are strengthened by internal processes of formalisation which is reflective of a high power distance economy. Rodriguez and Stewart (2017) suggest culture to be a regulatory power dynamic and in this instance, such predictive capacity appears to hold both from moderation and a moderated mediation perspective.

This links to our final contribution which relates to the contextual understanding of our investigation. HRM research continues to its bias in terms of traditional/ orthodox Westernized research paradigms, through privileging organisational and managerial vested interests over other stakeholder groups (Batt & Banerjee, 2012). The research in this article places the employee and their perceptions of HRM as the basis of understanding, in doing so in a Malaysian context where issues such as cultural power distance, and a collective based society

have implications for both the legitimacy of HRM and also its understanding at a group level (Li et al. 2011). Such considerations or ‘cultural tightness’ (Farndale & Sanders, 2016) are likely to consolidate the influence of HRM system strength; in this instance we found this to be true. The theoretical model proposed by Farndale and Sanders (2016) suggests that these cultural configurations can, if applied under the correct conditions, amplify both HRM system strength and employee outcomes. Our research extends previous research by both Sanders et al. (2008) and Li et al. (2011) by addressing their call to focus on multiple industries across an emerging economy. It can thus be concluded that cultural context matters, and while consensus is valued in collective societies (Li et al. 2011), that does not hold under regimes undergoing neo-liberal or financialised modes of market capitalism. We concur with the assertion of both Li et al. (2012) and Rodrigues and Stewart (2017) that culture has the potential to act as a signalling mechanism itself and therefore the impact of HRM initiatives could, potentially, become more pronounced in such cultures (Farndale & Sanders, 2017). Farndale and Sanders (2017) suggest that HRM system strength is complimented by a cultural tightness or looseness which in turn impacts performance orientation in specific cultures. Our research suggests that ‘distinctiveness, consistency and consensus’ all have a combined predictive value. What is important is that the configuration can vary across contexts and industries. While we found consensus had less predictive value than the combined influence of distinctiveness and consistency, which may not hold in other cultural environments. This suggests that under certain conditions or cultures that consensus may in fact be of diminished significance as employees start to question the assumed legitimacy of managerial authority and HR practices.

Implications for management practice

This research provides important insights for managerial practice. Management would be well placed to take a higher level assessment of the HRM system in terms of what signal or message it is sending to employees, and how (Townsend, Wilkinson, Bamber, & Allan, 2012). A

redirection of focus from one focusing primarily on the the content of HRM to the signalling and communication mechanism would prove useful in this regard. A thorough understanding of how employees, both individually and collectively, interpret HRM would prove invaluable for management. Through an understanding of the overarching voice and communicative processes, management may simultaneously, through mutual gains, be able to improve employee well-being and subsequent organisational efficiency (Wilkinson et al. 2014). Requesting (and expecting) positive attitudes and pro-social citizenship behaviour is simply insufficient. To this end, a clearer sequential process by which the HRM system supports employee concerns and interests which underscore consensus orientated outcomes may be more fruitful in terms of strategic planning. This research also highlights issues for management practice in terms of cultural sensitivities surrounding transferring HR policies and practices from one location to another.

Limitations

Like all research there are some limitations that should be considered when interpreting the results. First, as with all cross sectional research, common method variance can become an issue (Reio, 2010). We also relied on single informants; future research should pursue multi-sources that cross check the signalling function that is the HRM system (Bainbridge et al., 2017). By doing this over a longitudinal time frame possible barriers could become apparent. A second limitation concerns the predictive validity in assessing the surevy. Climate and affective commitment were used as opposed to organisational performace in this assessment. The rationale of HRM system strength is, in this instance, to mediate or moderate the HRM policies and practices-organisational performance link. Further elaboration requires incorporation of further mediating or moderating variables, while also assessing barriers to collective understanding of the cumulative strength of the HRM system. A final potential

limitation of this this research is that it specifically focuses on perceptions of HRM system strength (Delmotte et al. 2012) as opposed to actually measuring HRM practices (Li et al. 2011; Sanders et al. 2008). Notwithstanding these limitations, results from our study confirm that HRM system strength is empirically supported, although with some changes, relative to its previously understood theoretical explanation (Bowen and Ostroff 2004).

Future Research

Research may add to system strength by examining the specific role of line managers and their role in HRM system design and implementation of HRM systems. An interesting line of enquiry could assess divergence from managerial intention in relation to the inherent signalling that is apparent in HRM system strength. A clearer understanding of the conditions under which this occurs, beyond incorporating a concern for people related matters, may indeed prove useful. It is also likely that differing employee groups may be subject to different HR practices (Geare et al., 2014) therefore this could suggest multiple systems and associated strength. Future research could also use both measures of HR practices and HRM system strength simultaneously to increase our understanding and theorisation of the processes with which HRM activities influence positive work outcomes. An assessment of such systems would undoubtedly assist in our understanding of both the HRM system strength thesis and our understanding of communication and signalling processes. Finally, future research could comparatively assess HRM system strength across different cultural dimensions i.e. compare collectivist and individualistic cultures.

Conclusion

This study examines HRM system strength (distinctiveness, consistency and consensus) and its relationship to employee attitudes, specifically affective commitment. The paper adds and builds on knowledge concerning how HRM systems operate as a signalling mechanism. The

findings reinforce the value of distinctiveness, consistency and consensus as key elements framing how HRM signals managerial intentions to employees. Moreover, the findings illustrate the positive benefits HRM system strength alongside both a human relations climate and an internal process climate in shaping outcomes. The findings also illustrate the important of the impact a concern for people related matters compliments our understanding of HRM system strength. Overall, this paper serves to advance process-based understanding in the hitherto underexplored unique context of Malaysia.

References

- Aiken, L. S. & West, S. G. (1991), *Multiple regression: Testing and interpreting interactions*, Sage, Newbury Park, CA.
- Bainbridge, H., Sanders, K., Cogan, J., & Lin, C.-h. (2017). 'The pervasiveness and trajectory of methodological choices: A 20 year review of HRM research,' *Human Resource Management*, DOI:10.1002/hrm.21807.
- Baron, R. M., & Kenny, D. A. (1986). 'The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations,' *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Batt, R., & Banerjee, M. (2012). 'The Scope and Trajectory of Strategic HR Research: Evidence from American and British Journals,' *The International Journal of Human Resource Management*, 23, 1739–1762.
- Boxall, P., Guthrie, J., & Paauwe, J. (2016) 'Editorial introduction: Progressing our understanding of the mediating variable linking HRM, well-being and organisational performance' *Human Resource Management Journal*, 26(2): 103-111.
- Bowen, D. E. & Ostroff, C. (2004), 'Understanding HRM-firm performance linkages: the role of the "strength" of the HRM system,' *Academy of Management Review*, 29, 203-221.
- Cafferkey, K., Harney, B., Dundon, T. & Edgar, F. (2017) 'Unravelling the foci of employee commitment' *Journal of Organizational Effectiveness: People and Performance*, 4, 2-27.
- Cafferkey, K. & Dundon, T. (2015), 'Explaining the black box: HPWS and organisational climate,' *Personnel Review*, 44, 666-688.
- Cafferkey, K., Harney, B. & Teck, P. E. (2013), 'Human Capital in Malaysian SMEs: HR Practices, Uniqueness, and Value,' in *Effective Human Resources Management in Small and Medium Enterprises: Global Perspectives*, eds. C. Machado and P. Melo, IGI Global, pp. 28-43.
- Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010), 'From the editors: Common method variance in international business research,' *Journal of International Business Studies*, 41, 178-184.
- Cropanzano, R., Anthony, E., Daniels, S., & Hall, A. (2017) 'Social exchange theory: A critical review with theoretical remedies', *Academy of Management Annals*, 11: 479-516.

- Cullinane, N., Donaghey, J., Dundon, T., Dobbins & Hickland, E. (2014), 'Regulating for Mutual Gains: Non-Union Employee Representation and the Information and Consultation Directive', *The International Journal of Human Resource Management*, 25, 810-828.
- Dello Russo, S., Mascia, D., & Morandi, F. (2016), 'Individual perceptions of HR practices, HRM strength and appropriateness of care: A meso, multilevel approach,' *The International Journal of Human Resource Management*, Doi: 10.1080/09585192.2016.1165276
- Delmotte, J., De Winne, S. & Sels, L. (2012), 'Toward an assessment of perceived HRM system strength: Scale development and validation,' *The International Journal of Human Resource Management*, 23, 1481–1506.
- Delmotte, J., De Winne, S., Gilbert, C., & Sels, L. (2007, November). *Comparing line managers' and trade union representatives' assessments of HRM system strength*. Paper presented at the Fifth International Conference of the Dutch HRM Network, November 9&10, Tilburg, the Netherlands.
- Dickson, M.W., Hanges, P.J. & Resick, C.J. (2006), 'When Organizational Climate is Unambiguous, It is Also Strong,' *Journal of Applied Psychology*, 91, 351–364.
- Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L. & Ferris, G. R. (2012). 'A meta-analysis of antecedents and consequences of leader-member exchange integrating the past with an eye toward the future', *Journal of Management*, 38, 1715-1759.
- Edwards, J.R. & Lambert, L.S. (2007), 'Methods for integrating moderation and mediation: a general analytical framework using moderated path analysis,' *Psychological Methods*, 12, 1-22.
- Farndale, E. & Sanders, K. (2016), 'Conceptualizing HRM system strength through a cross-cultural lens,' *The International Journal of Human Resource Management*, doi: <http://dx.doi.org/10.1080/09585192.2016.1239124>.
- Geare, A., F. Edgar, I. McAndrew, B. Harney, K. Cafferkey & T. Dundon (2014), 'Exploring the ideological undercurrents of HRM: workplace values and beliefs in Ireland and New Zealand,' *The International Journal of Human Resource Management*, 25, 2275-2294.
- Geels, F. W. (2004), 'From sectoral systems of innovation to socio-technical systems: Insights about dynamics and change from sociology and institutional theory,' *Research policy*, 33, 897-920.
- Godard, J. (2014), 'The Psychologisation of Employee Relations,' *Human Resource Management Journal*, 24, 1-18.

- Gould-Williams, J. (2007), 'HR practices, organizational climate and employee outcomes: evaluating social exchange relationships in local government,' *The International Journal of Human Resource Management*, 19, 1627-1647.
- Guest, D. E. (2017), 'Human resource management and employee well-being: towards a new analytic framework,' *Human Resource Management Journal*, 27, 22-38.
- Harney B, Dundon, T. and Wilkinson, A. (2017) 'Employment Relations and Human Resource Management' in A. Wilkinson, J. Donaghey, T Dundon and A. 13 Colvin (eds), *The Routledge Companion to Employment Relations*, London: Routledge
- Hayes, A. F. (2013). Model templates for PROCESS for SPSS and SAS. Retrieved September 2017.
- Heffernan, M. & Dundon, T. (2016), 'Cross-level effects of high-performance work systems (HPWS) and employee well-being: the mediating effect of organisational justice', *Human Resource Management Journal*, 26, 211-231.
- Hofstede, G. (2016) <http://geert-hofstede.com/malaysia.html>, accessed 23rd of February.
- Jiang, K., Lepak, D., Hu, J. & Baer, J. (2012). 'How Does Human Resource Management Influence Organizational Outcomes? A Meta-Analytic Investigation of Mediating Mechanisms,' *Academy of Management Journal*, 55, 1264-1294.
- Katou, A., Budhwar, P. & Patel, C. (2014), 'Content vs. process in the HRM-Performance relationship: An empirical examination,' *Human Resource Management*, 53, 527-544.
- Kelley, H. H. (1973), 'The processes of causal attribution,' *American Psychologist*, 28, 107-128.
- Li, X., Frenkel, S. J. & Sanders, K. (2011), 'Strategic HRM as process: How HR system and organizational climate strength influence Chinese employee attitudes,' *The International Journal of Human Resource Management*, 22, 1825-1842.
- Liu, Y. (2009), 'Perceived organizational support and expatriate organizational citizenship behavior: The mediating role of affective commitment towards the parent company,' *Personnel Review*, 38, 307-319.
- Martinez-Lucio, M. & Stuart, M. (2004), 'Swimming against the tide: social partnership, mutual gains and the revival of 'tired' HRM,' *The International Journal of Human Resource Management*, 15, 410-424.
- McDermott, A. M., Conway, E., Cafferkey, K., Bosak, J. & Flood, P.C. (2017), 'Performance management in context: formative cross-functional performance monitoring for improvement and the mediating role of relational coordination in hospitals', *The*

- McGregor, D. (1960), *The Human Side of Enterprise*. London: McGraw-Hill.
- Meyer, J.P. & Allen, N.J. (1991), 'A three-component conceptualization of organizational commitment,' *Human Resource Management Review*, 1, 61-89.
- Ng, T. W. & Feldman, D. C. (2011), 'Affective organizational commitment and citizenship behavior: Linear and non-linear moderating effects of organizational tenure', *Journal of Vocational Behavior*, 79, 528-537.
- Nishii, L., Lepak, D. P. & Schneider, B. (2008), 'Employee attributions of the "why" of HR practices: Their effects on employee attitudes and behaviors, and customer satisfaction,' *Personnel Psychology*, 61, 503-545.
- Ostroff, C. & Bowen, D. E. (2016), 'Reflections on the 2014 decade award: Is there strength in the construct of HR system strength,' *Academy of Management Review*, 41, 196-214.
- Paauwe, J. & Boselie, P. (2005), 'HRM and performance: what next?' *Human Resource Management Journal*, 15, 68-83.
- Patterson, M., West, M., Shackelton, V., Dawson, J., Lawthom, R., Maitlis, S., & Wallace, A. (2005), 'Validating the organizational climate measure: links to managerial practices, productivity and innovation,' *Journal of Organizational Behaviour*, 26, 379-408.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012), 'Sources of method bias in social science research and recommendations on how to control it,' *Annual review of psychology*, 63, 539-569.
- Preacher, K. J. & Hayes, A. F. (2008), 'Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models,' *Behavior research methods*, 40, 879-891.
- Purcell, J., Kinnie, N., Hutchenson, S., Rayton, B. & Swart, J. (2003). *Understanding the People and Performance Link: Unlocking the black box*, CIPD: Work and Employment Research Centre.
- Quinn, R. E. & Rohrbaugh, J. (1983), 'A spatial model of effectiveness criteria: Towards a competing values approach to organisational analysis,' *Management Science*, 29, 363-377.
- Reece, B. & Reece, M. (2016), *Effective human relations: Interpersonal and organizational applications*, Cengage Learning, Mason MI.
- Reio, T. G. (2010), 'The threat of common method variance bias to theory building,' *Human Resource Development Review*, 9, 405-411.

- Rockstuhl, T., Dulebohn, J. H., Ang, S. & Shore, L. M. (2012), 'Leader-member exchange (LMX) and culture: A meta-analysis of correlates of LMX across 23 countries,' *Journal of Applied Psychology*, 97, 1097-1130.
- Rodriguez, J. K. & Stewart, P. (2017), 'HRM and work practices in Chile: the regulatory power of organisational culture,' *Employee Relations*, 39, 378-390.
- Sanders, K., Dorenbosch, L. & de Reuver, R. (2008), 'The impact of individual and shared employee perceptions of HRM on affective commitment: Considering climate strength,' *Personnel Review*, 37, 412-425.
- Sanders, K. & Yang, H. (2016), 'The HRM Process Approach: The Influence of Employees' Attribution to Explain the HRM-Performance Relationship,' *Human Resource Management*, 55, 201-217.
- Schneider, B., Salvaggio, A. N. & Subirats, M. (2002), 'Climate strength: a new direction for climate research,' *Journal of Applied Psychology*, 87, 220-229.
- Shore, L. M., Coyle-Shapiro, J. A. M., Chen, X. P., & Tetrick, L. E. (2009), Social exchange in work settings: Content, process, and mixed models,' *Management and Organization Review*, 5, 289-302.
- Sobel, M. E. (1982), 'Asymptotic confidence intervals for indirect effects in structural equation models,' *Sociological methodology*, 13, 290-312.
- Townsend, K., Wilkinson, A., Bamber, G., and Allan, C., (2012) 'Mixed Signals in Human Resources Management: The HRM Role of Hospital Line Managers', *Human Resource Management Journal*, 22, 267-282.
- Townsend, K. & Wilkinson, A. (2010) 'Managing Under Pressure: HRM in Hospitals' *Human Resource Management Journal*, 20, 332-338.
- Ulrich, D. (2013), *Human resource champions: The next agenda for adding value and delivering results*, Harvard Business Press, Boston MA.
- Valizade, D., Ogbonnaya, C., Tregaskis, O., & Forde, C. (2016). 'A mutual gains perspective on workplace partnership: Employee outcomes and the mediating role of the employment relations climate'. *Human Resource Management Journal*, 36, 351-368
- Van De Voorde, K., Paauwe, J. & Van Veldhoven, M. (2012), 'Employee well-being and the HRM-organizational performance relationship: a review of quantitative studies,' *International Journal of Management Reviews*, 14, 391-407.

- Whitener, E.M. (2001), 'Do "high commitment" human resource practices affect employee commitment? A cross-level analysis using hierarchical linear modelling,' *Journal of Management*, 27, 515-535.
- Wilkinson, A., Dundon, T., Townsend K. & J. Donaghey (2014), 'Partnership, Collaboration and Mutual Gains: evaluating context, interests and legitimacy,' *The International Journal of Human Resource Management*, 25, 737-747.

Figure 1: Proposed conceptual model

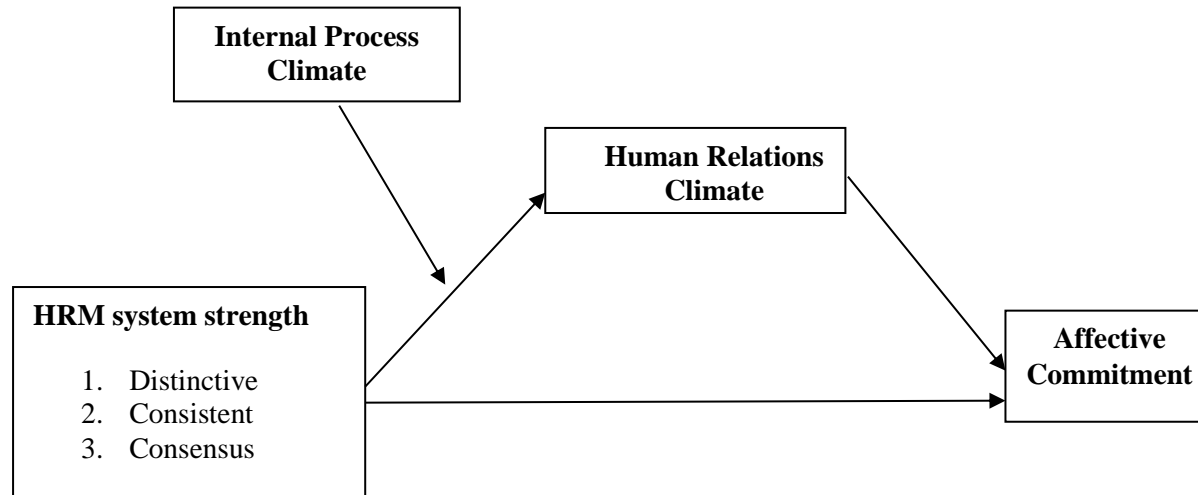


Table 1: Response rates by organisation

Organisation				
	Distributed	Returned	Response Rate (%)	Percent
University	380	95	25	16.2
Logistics	200	81	41	13.8
Construction	355	52	15	8.9
Transport	205	51	25	8.7
Airline	160	24	15	4.1
University	120	28	23	4.8
Police	316	100	31	17.1
Publishing	208	119	57	20.3
Healthcare	125	35	28	6.0
Total	2069	585	28.8%	100.0

Table 2: Means, standard deviations, reliabilities and correlations between variables

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>
1. Gender	-	-													
2. Age	-	-	.149**												
3. Tenure	2.43	1.026	-.021	.491**											
4. Public/Private	0.72	0.446	-.035	-.171**	-.143**										
5. Research	-	-	-.227	-.034	.128**	.062									
6. Logistics	-	-	.057	.171**	.057	.162**	-.067**								
7. Government	-	-	.002	.015	.005	-.740**	-.276**	-.274**							
8. Distinctive	3.326	0.785	.024	-.013	-.035	-.081	-.074	.161**	.137**	(.83)					
9. Consistent	3.183	0.735	.016	.026	-.013	-.021	-.258**	.165**	.156**	.421**	(.69)				
10. Consensus	3.406	0.720	.047	.015	-.064	-.053	-.176**	.137**	.088*	.447**	.443**	(.74)			
11. HR climate	2.752	0.509	.172**	-.004	-.089*	.073	-.219**	.086*	.005	.386**	.368**	.331**	(.90)		
12. Int process	3.073	0.680	-.039	-.087*	-.100*	.130**	-.111**	.094*	.007	.149**	.267**	.083*	.257**	(.85)	
13. AC	2.831	0.579	-.043	-.030	.003	-.031	.153**	-.071	.021	.321**	.222**	.239**	.605**	.134**	(.80)

Note: n = 585, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; SD = Standard Deviation; HR climate = human relations climate; AC = affective commitment; reliabilities are presented within the parentheses.

Table 3: Regression results for testing direct and indirect effects

Predictor	<i>b</i>	<i>SE</i>	<i>t</i>
Direct and total effects			
Distinctiveness →human relations climate (<i>a</i>)	.1957***	.0369	5.3044
Human relations climate→ AC, controlling for Distinctiveness (<i>b</i>)	.4587***	.0308	14.89
Distinctiveness → AC (<i>c</i>)	.3044***	.0322	9.450
Distinctiveness → AC, controlling for human relations climate (<i>c'</i>)	.2147***	.0281	7.642
Indirect effect and significance using normal distribution			
Distinctiveness →human relations climate →AC	.0897	.0180	4.98***
Bootstrapping results for indirect effects			
	Effect	Bootstrap SE	95% CI LL UL
Distinctiveness →human relations climate →AC	.0897	.0211	(.05, .13)
Predictor	<i>b</i>	<i>SE</i>	<i>t</i>
Direct and total effects			
Consistency →human relations climate (<i>a</i>)	.2348***	.0342	6.856
Human relations climate→ AC, controlling for Consistency (<i>b</i>)	.4902***	.0327	15.000
Consistency → AC (<i>c</i>)	.1748***	.0318	5.498
Consistency → AC, controlling for human relations climate (<i>c'</i>)	.0597*	.0281	2.1261
Indirect effect and significance using normal distribution			
Consistency →human relations climate →AC	.1151	.0185	6.2242***
Bootstrapping results for indirect effects			
	Effect	Bootstrap SE	95% CI LL UL
Consistency →human relations climate →AC	.1151	.0213	(.07, .16)
Predictor	<i>b</i>	<i>SE</i>	<i>t</i>
Direct and total effects			
Consensus →human relations climate (<i>a</i>)	.1655***	.0357	4.6354
Human relations climate→ AC, controlling for Consensus (<i>b</i>)	.4852***	0.0317	15.306
Consensus → AC (<i>c</i>)	.1921***	.0323	5.9423
Consensus → AC, controlling for human relations climate (<i>c'</i>)	.1118**	.0278	4.0195
Indirect effect and significance using normal distribution			
Consensus →human relations climate →AC	.0803	.0181	4.4278***
Bootstrapping results for indirect effects			
	Effect	Bootstrap SE	95% CI LL UL
Consensus →human relations climate →AC	.0803	.0208	(.04, .12)

Note: AC = Affective commitment; CI = Confidence level; LL = Lower limit; UL = Upper limit

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 4: Regression results for testing moderation of internal process climate

	Human Relations Climate				
Variables	<i>b</i> (se)	ΔR^2	<i>t</i>	CI UL LL	Overall <i>F</i>
<i>Main Effects</i>					
Distinctiveness	.168 (.03)***		4.60	.09, .24	27.58***
Consistency	.221 (.03)***		6.37	.15, .28	33.76***
Consensus	.142 (.09)**		4.01	.07, .21	23.93***
Internal Process (IP)	.459 (.07)***		6.20	.31, .60	
<i>Interaction</i>					
Distinct x IP	.363 (.09)***	.0216	3.75	.17, .55	14.088**
Consistency x IP	.392 (.09)***	.0270	4.25	.21, .57	18.07***
Consensus x IP	.288 (.09)**	.0153	3.12	.10, .46	9.7846**

* $p < .05$ ** $p < .01$ *** $p < .001$ Control variables include gender, age, industry and for each IV, the two other independent variables were included as covariates.

Figure 2: The moderating effect of internal process climate on the relationship between distinctiveness of HRM system and human relations climate

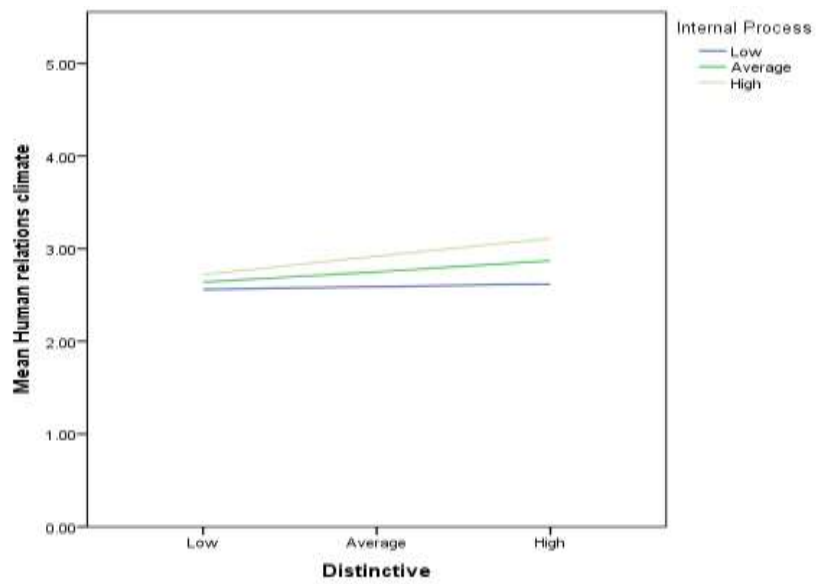


Figure 3: The moderating effect of internal process climate on the relationship between consistency of HRM system and human relations climate

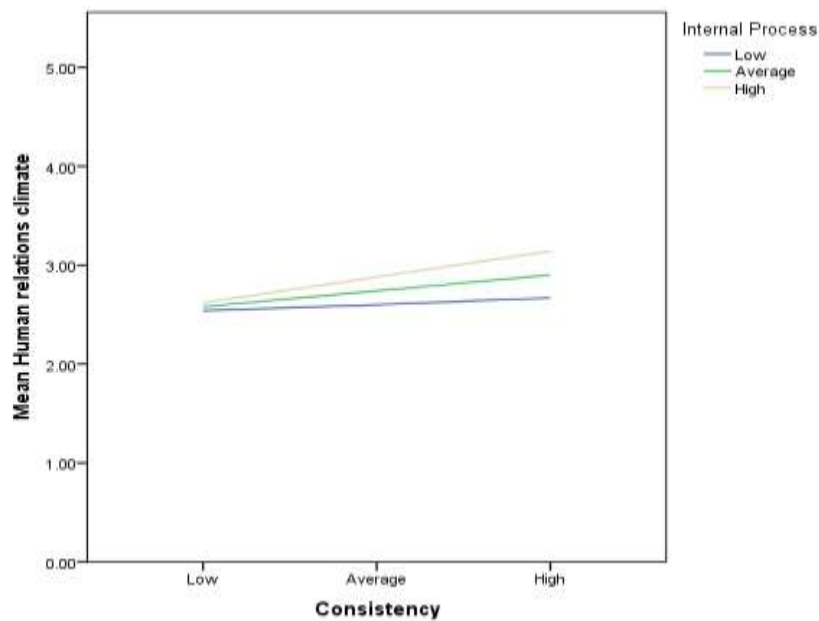


Figure 4: The moderating effect of internal process climate on the relationship between consensus of HRM system and human relations climate

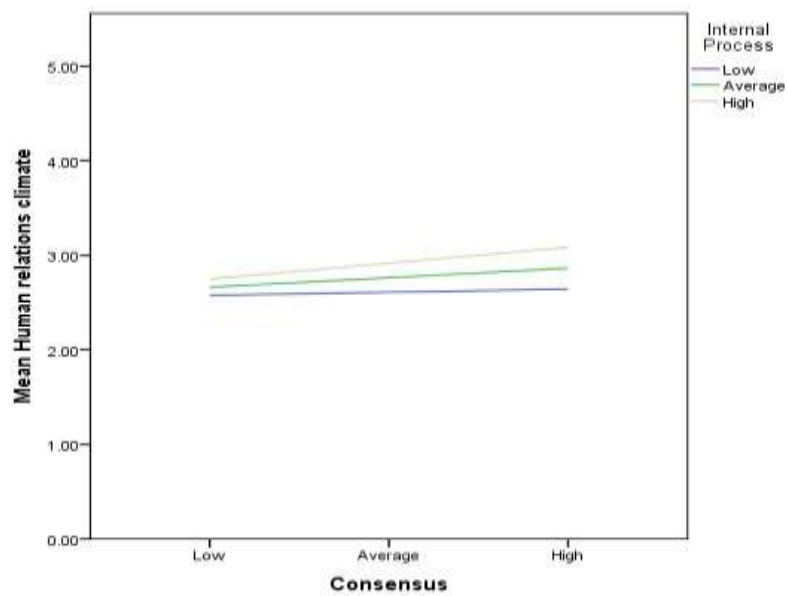


Table 5: Conditional indirect effects (through human relations climate) of HRM system strength on affective commitment at values of moderator (internal process)

Independent Variable	Value of moderator (Internal process)	Conditional indirect effect	Boot SE	95% CI	
				LL	UL
Distinctiveness	Low (mean - 1SD)	.0208	.0256	-.0292	.0701
	Mean	.0741	.0197	.0403	.1196
	High (mean + 1SD)	.1275	.0270	.0809	.1866
Consistency	Low (mean - 1SD)	.0427	.0210	.0030	.0857
	Mean	.1046	.0203	.0700	.1503
	High (mean + 1SD)	.1665	.0311	.1123	.2347
Consensus	Low (mean - 1SD)	.0215	.0264	-.0324	.0722
	Mean	.0668	.0200	.0325	.1114
	High (mean + 1SD)	.1121	.0247	.0698	.1669

Note: CI = confidence interval; LL = Lower limit; UL = Upper limit. Bootstrap sample = 5000